



MARKER PAINT

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 02/01/2024 Revision date: 29/11/2023 Supersedes version of: 23/12/2022 Version: 3.4

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : MARKER PAINT
UFI : 0FDY-Y8QP-200K-867K
Product code : BDS001588AE
Vaporizer : Aerosol

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : Paints

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

CRC Industries Europe B.V.
Touwslagerstraat 1
9240 Zele
Belgium
T +32(0)52/45.60.11, F +32(0)52/45.00.34
hse@crcind.com, www.crcind.com

1.4. Emergency telephone number

Emergency number : +32(0)52/45.60.11
Office hours: 9-17h CET

Country	Organisation/Company	Address	Emergency number	Comment
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Militaire Reine Astrid	Rue Bruyn 1 1120 Brussels	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol, Category 1 H222;H229
Serious eye damage/eye irritation, Category 2 H319
Specific target organ toxicity – Single exposure, Category 3, H336
Narcosis
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. May cause drowsiness or dizziness. Causes serious eye irritation.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS07

Signal word (CLP)

: Danger

Contains

: n-butyl acetate; ethyl acetate; 2-methoxy-1-methylethyl acetate; butan-1-ol; n-butanol

Hazard statements (CLP)

: H222 - Extremely flammable aerosol.

H229 - Pressurised container: May burst if heated.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

Precautionary statements (CLP)

: P102 - Keep out of reach of children.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P211 - Do not spray on an open flame or other ignition source.

P251 - Do not pierce or burn, even after use.

P261 - Avoid breathing vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

P501 - Dispose of contents/container to a hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements

: EUH066 - Repeated exposure may cause skin dryness or cracking.

EUH208 - Contains reaction mass of: N, N'-Ethane-1,2-diylbis(decanamide); 12-Hydroxy-N-[2-[1-oxydecyl]amino]ethyl]octadecanamide; N, N'-Ethane-1,2-diylbis(12hydroxyoctadecanamide). May produce an allergic reaction.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
dimethyl ether substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 115-10-6 EC-No.: 204-065-8 EC Index-No.: 603-019-00-8 REACH-no: 01-2119472128-37	30 - <50	Flam. Gas 1, H220 Press. Gas (Liq.), H280
n-butyl acetate substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 123-86-4 EC-No.: 204-658-1 EC Index-No.: 607-025-00-1 REACH-no: 01-2119485493-29	10 - <20	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethyl acetate substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 141-78-6 EC-No.: 205-500-4 EC Index-No.: 607-022-00-5 REACH-no: 01-2119475103-46	10 - <20	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066
2-methoxy-1-methylethyl acetate substance with national workplace exposure limit(s) (BE); substance with a Community workplace exposure limit	CAS-No.: 108-65-6 EC-No.: 203-603-9 EC Index-No.: 607-195-00-7 REACH-no: 01-2119475791-29	1 - <2,5	Flam. Liq. 3, H226 STOT SE 3, H336
butan-1-ol; n-butanol substance with national workplace exposure limit(s) (BE)	CAS-No.: 71-36-3 EC-No.: 200-751-6 EC Index-No.: 603-004-00-6 REACH-no: 01-2119484630-38	1 - <2,5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H336
reaction mass of ethylbenzene and m-xylene and p-xylene	EC-No.: 905-562-9 REACH-no: 01-2119488216-32	1 - <2,5	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation:dust,mist), H332 (ATE=1,5 mg/l/4h) Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
reaction mass of: N, N'-Ethane-1,2-diylbis(decanamide); 12-Hydroxy-N-[2-[1-oxydecyl)amino]ethyl]octadecanamide; N, N'-Ethane-1,2-diylbis(12hydroxyoctadecanamide)	EC-No.: 430-050-2 EC Index-No.: 616-127-00-5 REACH-no: 01-2120789217-43	0,3 - <1	Skin Sens. 1, H317 Aquatic Chronic 2, H411

Product subject to CLP Article 1.1.3.7. The disclosure rules of the components is modified in this case.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If signs/symptoms develop, get medical attention.
First-aid measures after skin contact	: Wash skin with plenty of water. Seek medical attention if irritation develops.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Seek medical attention if irritation develops.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Eye irritation.

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4.3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol.
Explosion hazard : Pressurised container: May burst if heated.
Hazardous decomposition products in case of fire : During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Firefighting instructions : Move containers from fire area if it can be done without personal risk. Use standard firefighting procedures and consider the hazards of other involved materials.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear appropriate protective equipment and clothing during clean-up.
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures : Evacuate unnecessary personnel. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Following product recovery, flush area with water. Take up small spills with dry chemical absorbent. Clean surface thoroughly to remove residual contamination.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For disposal of contaminated materials refer to section 13 : "Disposal considerations".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid prolonged exposure. Handle in accordance with good industrial hygiene and safety procedures.

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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Keep container closed when not in use.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

dimethyl ether (115-10-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Dimethylether
IOEL TWA	1920 mg/m ³
	1000 ppm
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Belgium - Occupational Exposure Limits	
Local name	Oxyde de diméthyle # Dimethylether
OEL TWA	1920 mg/m ³
	1000 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
n-butyl acetate (123-86-4)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	n-Butyl acetate
IOEL TWA	241 mg/m ³
	50 ppm
IOEL STEL	723 mg/m ³
	150 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2019/1831
Belgium - Occupational Exposure Limits	
Local name	Acétate de n-butyle # n-Butylacetaat
OEL TWA	238 mg/m ³
	50 ppm
OEL STEL	712 mg/m ³
	150 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

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ethyl acetate (141-78-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Ethyl acetate
IOEL TWA	734 mg/m ³
	200 ppm
IOEL STEL	1468 mg/m ³
	400 ppm
Regulatory reference	COMMISSION DIRECTIVE (EU) 2017/164
Belgium - Occupational Exposure Limits	
Local name	Acétate d'éthyle # Ethylacetaat
OEL TWA	734 mg/m ³
	200 ppm
OEL STEL	1468 mg/m ³
	400 ppm
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
2-methoxy-1-methylethyl acetate (108-65-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Methoxy-1-methylethylacetate
IOEL TWA	275 mg/m ³
	50 ppm
IOEL STEL	550 mg/m ³
	100 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
Belgium - Occupational Exposure Limits	
Local name	Acétate de 2-(1-méthoxy)propyle # 2-(1-Methoxy)propylacetaat
OEL TWA	275 mg/m ³
	50 ppm
OEL STEL	550 mg/m ³
	100 ppm
Remark	D: la mention "D" signifie que la résorption de l'agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l'exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l'agent dans l'air. # D: de vermelding "D" betekent dat de opname van het agens via de huid, de slijmvliezen of de ogen een belangrijk deel van de totale blootstelling vormt. Deze opname kan het gevolg zijn van zowel direct contact als zijn aanwezigheid in de lucht.
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021
butan-1-ol; n-butanol (71-36-3)	
Belgium - Occupational Exposure Limits	
Local name	Alcool n-butylque # n-Butanol
OEL TWA	62 mg/m ³

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butan-1-ol; n-butanol (71-36-3)	
	20 ppm
Remark	D: la mention "D" signifie que la résorption de l'agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l'exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l'agent dans l'air. # D: de vermelding "D" betekent dat de opname van het agens via de huid, de slijmvliezen of de ogen een belangrijk deel van de totale blootstelling vormt. Deze opname kan het gevolg zijn van zowel direct contact als zijn aanwezigheid in de lucht.
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

dimethyl ether (115-10-6)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	1894 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	471 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,155 mg/l
PNEC aqua (marine water)	0,016 mg/l
PNEC aqua (intermittent, freshwater)	1549 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,681 mg/kg dwt
PNEC sediment (marine water)	0,069 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,045 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	160 mg/l
n-butyl acetate (123-86-4)	
PNEC (Water)	
PNEC aqua (freshwater)	0,18 mg/l
PNEC aqua (marine water)	0,018 mg/l
PNEC aqua (intermittent, freshwater)	0,36 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,981 mg/kg dwt
PNEC sediment (marine water)	0,0981 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0903 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	35,6 mg/l

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ethyl acetate (141-78-6)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	1468 mg/m ³
Acute - local effects, inhalation	1468 mg/m ³
Long-term - systemic effects, dermal	63 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	734 mg/m ³
Long-term - local effects, inhalation	734 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	734 mg/m ³
Acute - local effects, inhalation	734 mg/m ³
Long-term - systemic effects, oral	4,5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	367 mg/m ³
Long-term - systemic effects, dermal	37 mg/kg bodyweight/day
Long-term - local effects, inhalation	367 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,24 mg/l
PNEC aqua (marine water)	0,024 mg/l
PNEC aqua (intermittent, freshwater)	1,65 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1,15 mg/kg dwt
PNEC sediment (marine water)	0,115 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,148 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	0,2 g/kg food
PNEC (STP)	
PNEC sewage treatment plant	650 mg/l
2-methoxy-1-methylethyl acetate (108-65-6)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	550 mg/m ³
Long-term - systemic effects, dermal	796 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	275 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, oral	500 mg/kg bodyweight/day
Long-term - systemic effects, oral	36 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	33 mg/m ³
Long-term - systemic effects, dermal	320 mg/kg bodyweight/day
Long-term - local effects, inhalation	33 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,635 mg/l

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2-methoxy-1-methylethyl acetate (108-65-6)	
PNEC aqua (marine water)	0,0635 mg/l
PNEC aqua (intermittent, freshwater)	6,35 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3,29 mg/kg dwt
PNEC sediment (marine water)	0,329 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,29 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l
butan-1-ol; n-butanol (71-36-3)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	310 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	1,5625 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	55,357 mg/m ³
Long-term - systemic effects, dermal	3,125 mg/kg bodyweight/day
Long-term - local effects, inhalation	155 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,082 mg/l
PNEC aqua (marine water)	0,0082 mg/l
PNEC aqua (intermittent, freshwater)	2,25 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0,324 mg/kg dwt
PNEC sediment (marine water)	0,0324 mg/kg dwt
PNEC (Soil)	
PNEC soil	0,0166 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	2476 mg/l
reaction mass of ethylbenzene and m-xylene and p-xylene	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	442 mg/m ³
Acute - local effects, inhalation	442 mg/m ³
Long-term - systemic effects, dermal	212 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	221 mg/m ³
Long-term - local effects, inhalation	221 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	260 mg/m ³
Acute - local effects, inhalation	260 mg/m ³

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reaction mass of ethylbenzene and m-xylene and p-xylene	
Long-term - systemic effects, oral	12,5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	65,3 mg/m ³
Long-term - systemic effects, dermal	125 mg/kg bodyweight/day
Long-term - local effects, inhalation	65,3 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0,327 mg/l
PNEC aqua (marine water)	0,327 mg/l
PNEC aqua (intermittent, freshwater)	0,327 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	12,46 mg/kg dwt
PNEC sediment (marine water)	12,46 mg/kg dwt
PNEC (Soil)	
PNEC soil	2,31 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	6,58 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Use eye protection according to EN 166. Safety glasses with side shields.

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Wear suitable gloves tested to EN374. The breakthrough time of the glove should be longer than the total duration of product use. If work lasts longer than the breakthrough time, gloves should be changed part-way through. Nitrile gloves are recommended. Butyl-rubber protective gloves.

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Approved organic vapour respirator. Filter type: A

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8.2.2.4. Thermal hazards

Thermal hazard protection:

Not expected to present a significant hazard under anticipated conditions of normal use. Wear appropriate thermal protective clothing, when necessary.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Black.
Appearance	: DME propelled liquid.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: -25 °C (DME)
Flammability	: Extremely flammable aerosol.
Explosive properties	: Pressurised container: May burst if heated.
Lower explosion limit	: 2,8 vol %
Upper explosion limit	: 21,5 vol %
Flash point	: -41 °C (closed cup)
Auto-ignition temperature	: 240 °C
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not applicable
Vapour pressure	: < 300 kPa
Vapour pressure at 50°C	: Not available
Density	: 0,815 g/cm ³ at 20 °C
Relative density	: 0,815 at 20 °C
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

% of flammable ingredients : ≤ 75 %

9.2.2. Other safety characteristics

VOC content : 694 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)

dimethyl ether (115-10-6)

LC50 Inhalation - Rat	308,5 mg/l/4h
LC50 Inhalation - Rat [ppm]	164000 ppm

n-butyl acetate (123-86-4)

LD50 oral rat	10760 mg/kg
LD50 dermal rabbit	> 17600 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	23,4 mg/l/4h

ethyl acetate (141-78-6)

LD50 oral	4934 mg/kg bodyweight
LD50 dermal rabbit	> 20000 (<) mg/kg bodyweight

2-methoxy-1-methylethyl acetate (108-65-6)

LD50 oral rat	> 5000 mg/kg
LD50 oral	8532 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight
LD50 dermal	> 5000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 10800 mg/l

butan-1-ol; n-butanol (71-36-3)

LD50 oral rat	2292 mg/kg bodyweight
LD50 dermal rabbit	3430 mg/kg bodyweight

reaction mass of ethylbenzene and m-xylene and p-xylene

LD50 oral rat	5627 mg/kg
LD50 dermal rat	1100 mg/kg
LC50 Inhalation - Rat	11 mg/l

reaction mass of: N, N'-Ethane-1,2-diylbis(decanamide); 12-Hydroxy-N-[2-[1-oxydecyl]amino]ethyl]octadecanamide; N, N'-Ethane-1,2-diylbis(12hydroxyoctadecanamide)

LD50 oral rat	> 5000 mg/kg bodyweight
LD50 dermal rat	> 2000 mg/kg bodyweight

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
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n-butyl acetate (123-86-4)	
pH	6,2
Serious eye damage/irritation	: Causes serious eye irritation.
n-butyl acetate (123-86-4)	
pH	6,2
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: May cause drowsiness or dizziness.
n-butyl acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.
ethyl acetate (141-78-6)	
STOT-single exposure	May cause drowsiness or dizziness.
2-methoxy-1-methylethyl acetate (108-65-6)	
STOT-single exposure	May cause drowsiness or dizziness.
butan-1-ol; n-butanol (71-36-3)	
STOT-single exposure	May cause respiratory irritation. May cause drowsiness or dizziness.
reaction mass of ethylbenzene and m-xylene and p-xylene	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
n-butyl acetate (123-86-4)	
LOAEL (oral, rat, 90 days)	500 mg/kg bodyweight
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight
ethyl acetate (141-78-6)	
LOAEL (oral, rat, 90 days)	3600 mg/kg bodyweight
NOAEL (oral, rat, 90 days)	900 mg/kg bodyweight
2-methoxy-1-methylethyl acetate (108-65-6)	
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight
reaction mass of ethylbenzene and m-xylene and p-xylene	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
reaction mass of: N, N'-Ethane-1,2-diylbis(decanamide); 12-Hydroxy-N-[2-[1-oxydecyl]amino]ethyl]octadecanamide; N, N'-Ethane-1,2-diylbis(12hydroxyoctadecanamide)	
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
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Vaporizer	Aerosol
n-butyl acetate (123-86-4)	
Viscosity, kinematic	0,83 mm ² /s

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butan-1-ol; n-butanol (71-36-3)

Viscosity, kinematic	3,641 mm ² /s
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Not rapidly degradable

dimethyl ether (115-10-6)

LC50 - Fish [1]	> 4,1 g/l
EC50 - Crustacea [1]	> 4,4 g/l Daphnia magna (Water flea)
EC50 96h - Algae [1]	154917 mg/l

n-butyl acetate (123-86-4)

LC50 - Fish [1]	18 mg/l
EC50 - Crustacea [1]	44 mg/l
EC50 72h - Algae [1]	674,7 mg/l
LOEC (chronic)	47,6 mg/l
NOEC (chronic)	23,2 mg/l
NOEC chronic algae	200 mg/l

ethyl acetate (141-78-6)

LC50 - Fish [1]	230 mg/l
EC50 - Other aquatic organisms [1]	717 mg/l Daphnia magna (Water flea)
NOEC (chronic)	2,4 mg/l 21 d

2-methoxy-1-methylethyl acetate (108-65-6)

LC50 - Fish [1]	> 100 mg/l
EC50 - Crustacea [1]	> 500 mg/l
EC50 - Other aquatic organisms [1]	408 mg/l
EC50 - Other aquatic organisms [2]	> 1000 mg/l
EC50 72h - Algae [1]	> 1000 mg/l
NOEC (chronic)	≥ 100 mg/l

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2-methoxy-1-methylethyl acetate (108-65-6)	
NOEC chronic fish	47,5 mg/l
butan-1-ol; n-butanol (71-36-3)	
LC50 - Fish [1]	1376 mg/l Pimephales promelas
EC50 - Crustacea [1]	1328 mg/l Daphnia magna
EC50 96h - Algae [1]	225 mg/l Raphidocelis subcapitata
NOEC (chronic)	4,1 mg/l Daphnia magna (21 d)
reaction mass of ethylbenzene and m-xylene and p-xylene	
LC50 - Fish [1]	10 – 100 mg/l
EC50 - Crustacea [1]	10 – 100 mg/l
EC50 72h - Algae [1]	10 – 100 mg/l
LOEC (chronic)	3,16 mg/l Daphnia magna (21 d)
NOEC chronic fish	> 1,3 mg/l Oncorhynchus mykiss (56 d)
reaction mass of: N, N'-Ethane-1,2-diylbis(decanamide); 12-Hydroxy-N-[2-[1-oxydecyl]amino]ethyl]octadecanamide; N, N'-Ethane-1,2-diylbis(12hydroxyoctadecanamide)	
LC50 - Fish [1]	1 – 10 mg/l
EC50 - Crustacea [1]	1 – 10 mg/l
EC50 72h - Algae [1]	1 – 10 mg/l
LOEC (chronic)	2,5 mg/l Daphnia magna (21 d)
NOEC (chronic)	0,9 mg/l Daphnia magna (21 d)
12.2. Persistence and degradability	
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Persistence and degradability	Not established. No data is available on the degradability of this product.
12.3. Bioaccumulative potential	
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Partition coefficient n-octanol/water (Log Kow)	Not applicable
dimethyl ether (115-10-6)	
Partition coefficient n-octanol/water (Log Pow)	0,07
n-butyl acetate (123-86-4)	
Partition coefficient n-octanol/water (Log Pow)	2,3
ethyl acetate (141-78-6)	
Partition coefficient n-octanol/water (Log Pow)	0,7
2-methoxy-1-methylethyl acetate (108-65-6)	
Partition coefficient n-octanol/water (Log Pow)	1,2
butan-1-ol; n-butanol (71-36-3)	
Partition coefficient n-octanol/water (Log Pow)	1

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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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Results of PBT assessment	Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII
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12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

12.7. Other adverse effects

Additional information : No other effects known
Global warming potential (GWP) : 1 (Fluorinated greenhouse gases - (EC) No 517/2014)






SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
European List of Waste (LoW, EC 2000/532) : According to the European Waste Catalogue (EWC), Waste Codes are not product specific, but application specific Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1950	UN 1950	UN 1950	UN 1950	UN 1950
14.2. UN proper shipping name				
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS	AEROSOLS
Transport document description				
UN 1950 AEROSOLS, 2.1, (D)	UN 1950 AEROSOLS, 2.1	UN 1950 Aerosols, flammable, 2.1	UN 1950 AEROSOLS, 2.1	UN 1950 AEROSOLS, 2.1
14.3. Transport hazard class(es)				
2.1	2.1	2.1	2.1	2.1
				
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: 5F
Special provisions (ADR)	: 190, 327, 344, 625
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P207, LP200
Special packing provisions (ADR)	: PP87, RR6, L2
Mixed packing provisions (ADR)	: MP9
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V14
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV9, CV12
Special provisions for carriage - Operation (ADR)	: S2
Tunnel restriction code (ADR)	: D

Transport by sea

Special provisions (IMDG)	: 63, 190, 277, 327, 344, 381, 959
Limited quantities (IMDG)	: SP277
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P207, LP200
Special packing provisions (IMDG)	: PP87, L2
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: None
Stowage and handling (IMDG)	: SW1, SW22
Segregation (IMDG)	: SG69

Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 150kg
Special provisions (IATA)	: A145, A167, A802
ERG code (IATA)	: 10L

Inland waterway transport

Classification code (ADN)	: 5F
Special provisions (ADN)	: 190, 327, 344, 625
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01, VE04
Number of blue cones/lights (ADN)	: 1

Rail transport

Classification code (RID)	: 5F
Special provisions (RID)	: 190, 327, 344, 625
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E0

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Packing instructions (RID)	: P207, LP200
Special packing provisions (RID)	: PP87, RR6, L2
Mixed packing provisions (RID)	: MP9
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W14
Special provisions for carriage - Loading, unloading and handling (RID)	: CW9, CW12
Colis express (express parcels) (RID)	: CE2
Hazard identification number (RID)	: 23

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOC Directive (2004/42)

VOC content : 694 g/l

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor

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Abbreviations and acronyms:	
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aerosol 1	Aerosol, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2

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Full text of H- and EUH-statements:	
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains reaction mass of: N, N'-Ethane-1,2-diylbis(decamide); 12-Hydroxy-N-[2-[1-oxydecyl]amino]ethyl]octadecanamide; N, N'-Ethane-1,2-diylbis(12hydroxyoctadecanamide). May produce an allergic reaction.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Gas 1	Flammable gases, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

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